

Public Health Working Group

SCAG Workshop
December 17, 2014



SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Goals of the Public Health Working Group

Rye Baerg
Public Health Working Group

November 17th, 2014



Working Group Goals

- Discuss components of the 2016 RTP/SCS
- Provide an ongoing forum for information sharing on regional public health issues related to transportation and the built environment
- Provide a forum for receiving input on SCAG projects related to public health, transportation and the built environment
- Facilitate dialogue between transportation/land use planning and public health stakeholders

Format

- Ad Hoc Quarterly Meetings
- Open to the public
- Varied Formats
 - Workshops
 - Information Sharing
 - Project Updates

Working Groups/Workshops (Spring 2015)

- Environmental Justice Workshops
- Public Health Working Group
- Active Transportation Working Group
- Open Space Workshops
- Safety and Encouragement Campaign Working Group
- Technical Working Group
- 2016 RTP/SCS Workshops

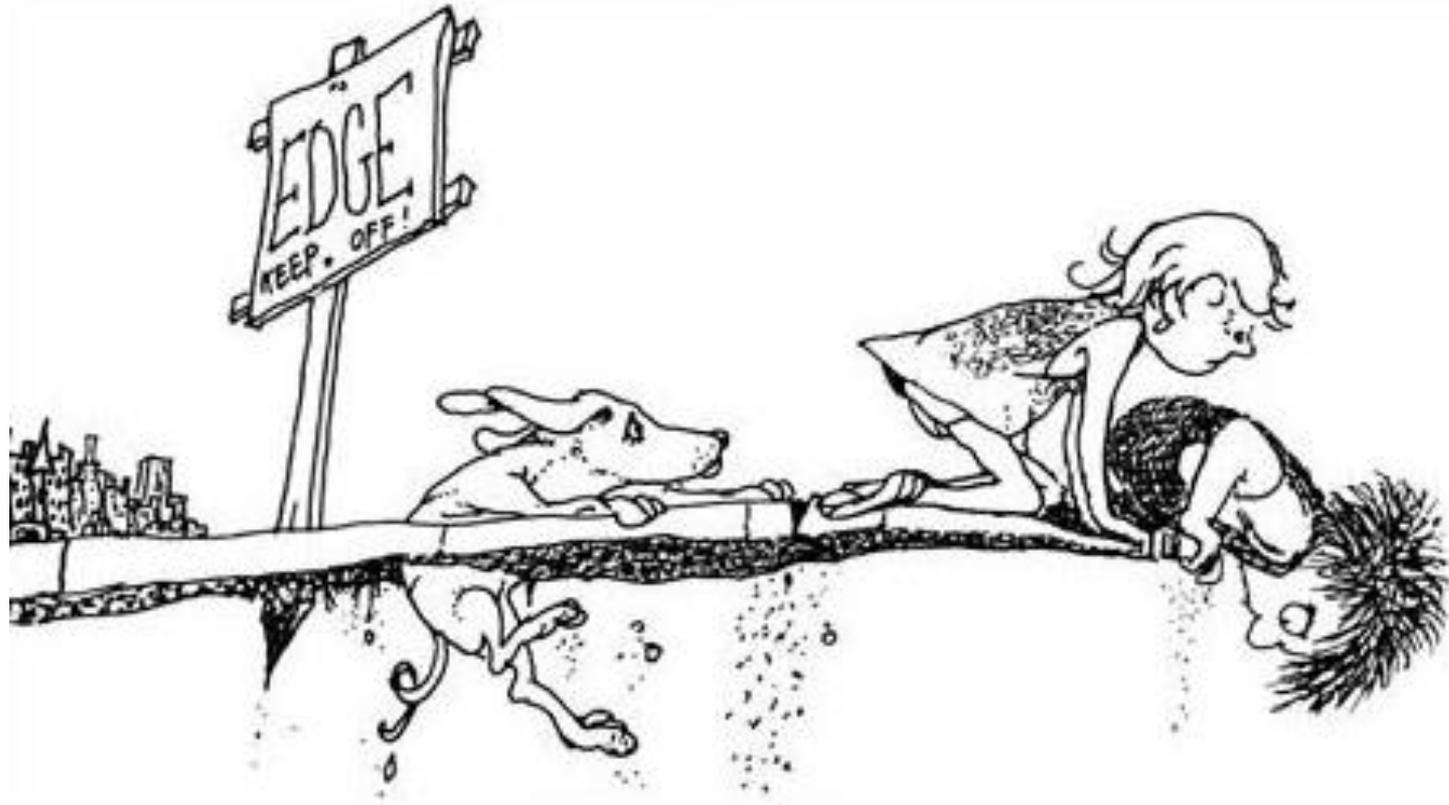
Possible Future Working Group Topics

- February/March
 - Performance Measures
 - Public Health White Paper
 - Active Transportation Health and Economic Benefits Study
- May/June
 - 2016 RTP/SCS Scenarios
 - Preview PH elements of Draft Plan
 - Discuss Policy Components of Draft Plan

Other Opportunities

- External Presentations
- Website Updates
- Individual Meetings
- SCAG Regional Council and Policy Committee Meetings

Where the Sidewalk Ends



Transforming Transportation and Health

“Your longevity and health are more determined by your ZIP code than by your genetic code.”

Dr. Tom Frieden – Director, CDC

ZIP CODE 95219

Life Expectancy

73



88

ZIP CODE 92657

Life Expectancy

health
happens

here



Place Matters



No Grocery Stores



Cars Not Peds

Does your environment support healthy choices?



Unsafe For Walking

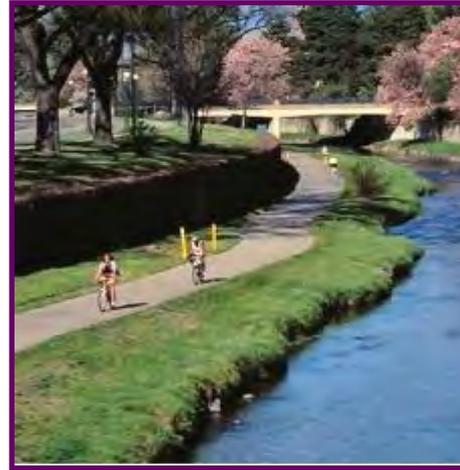


Air Quality

Place Matters- Chronic Disease Prevention



Pedestrian and Bike Friendly Neighborhoods



Walking School Bus

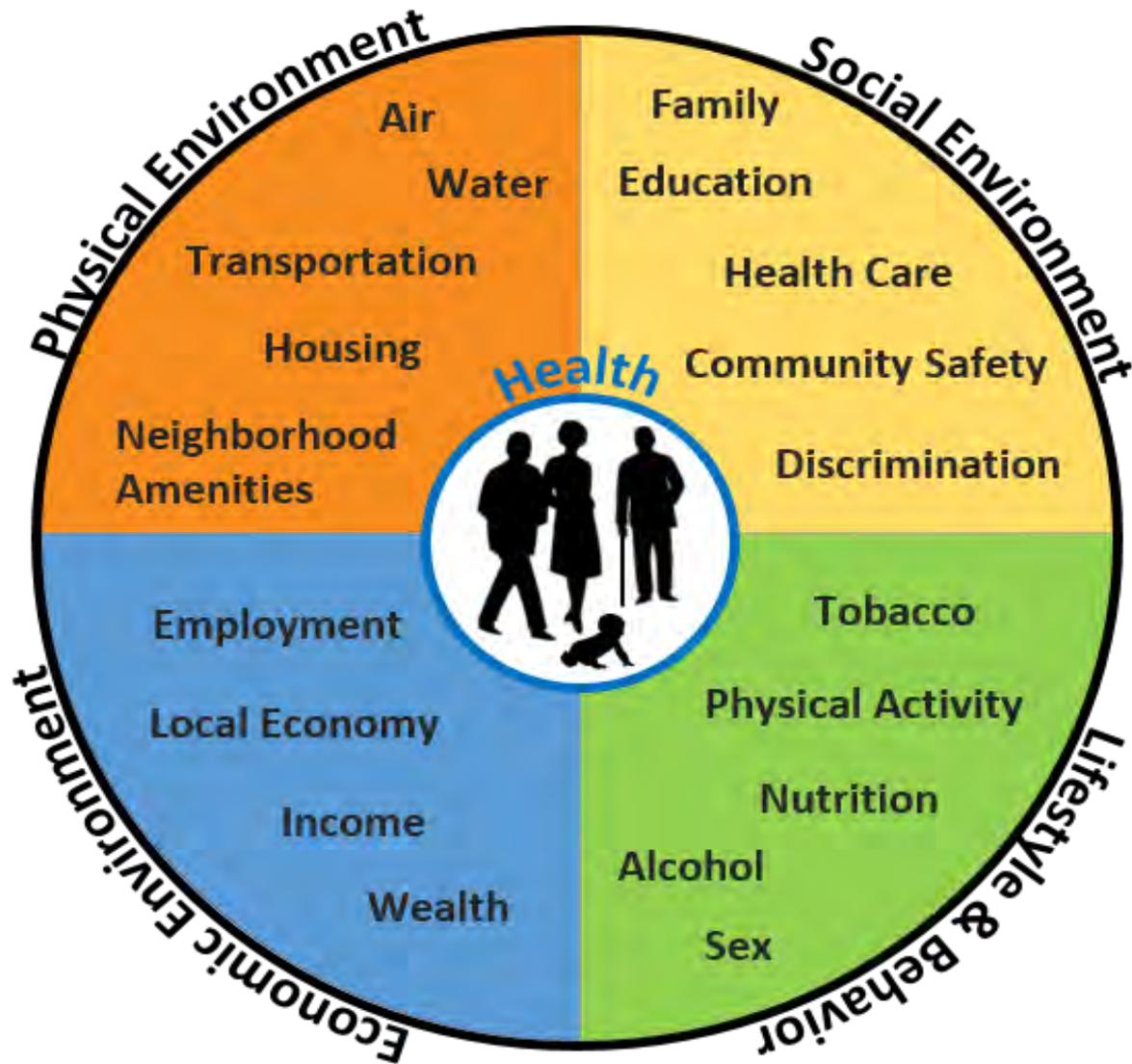


Smoke-Free Environments

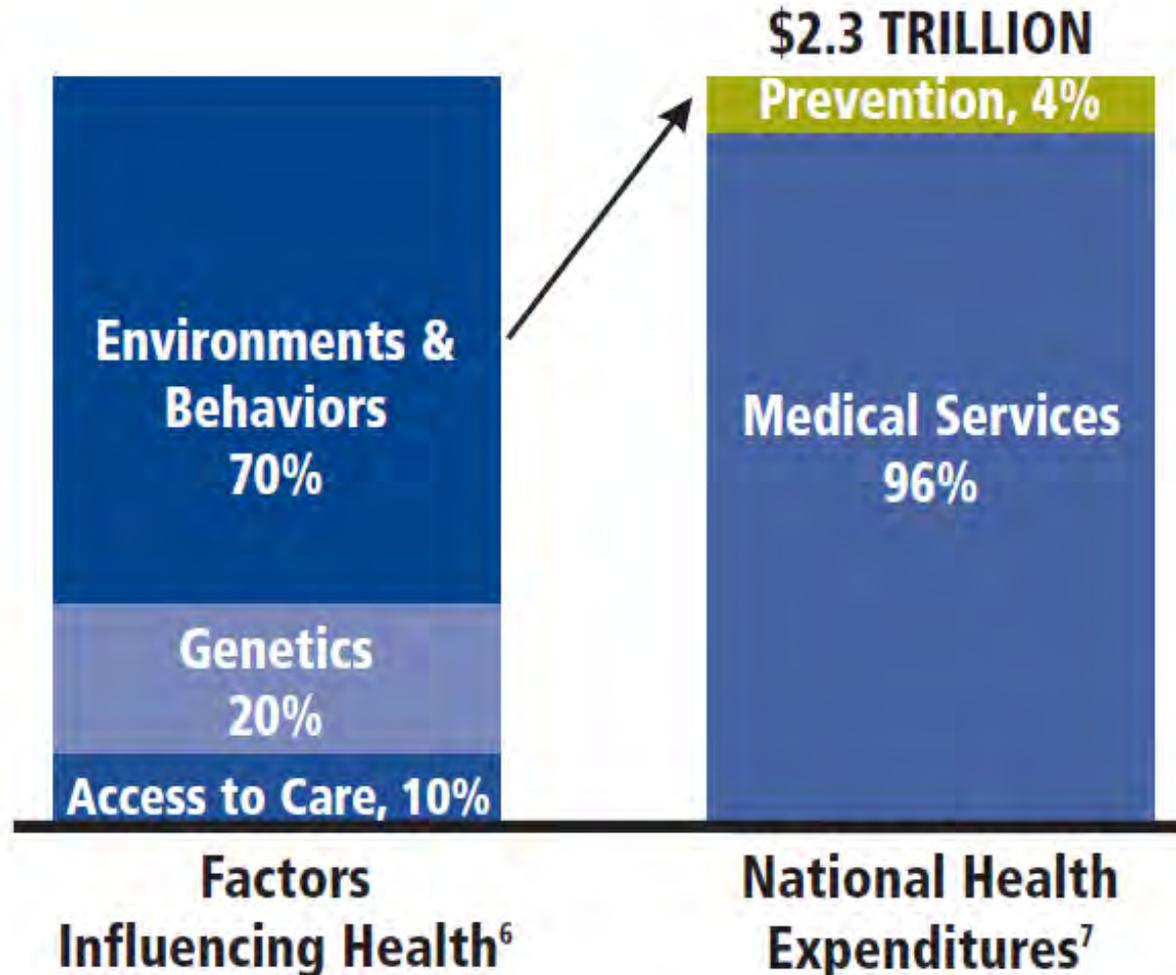


Community/School Gardens

Social Determinants



Health Determinants vs. Spending



Actual Causes of Death in the United States

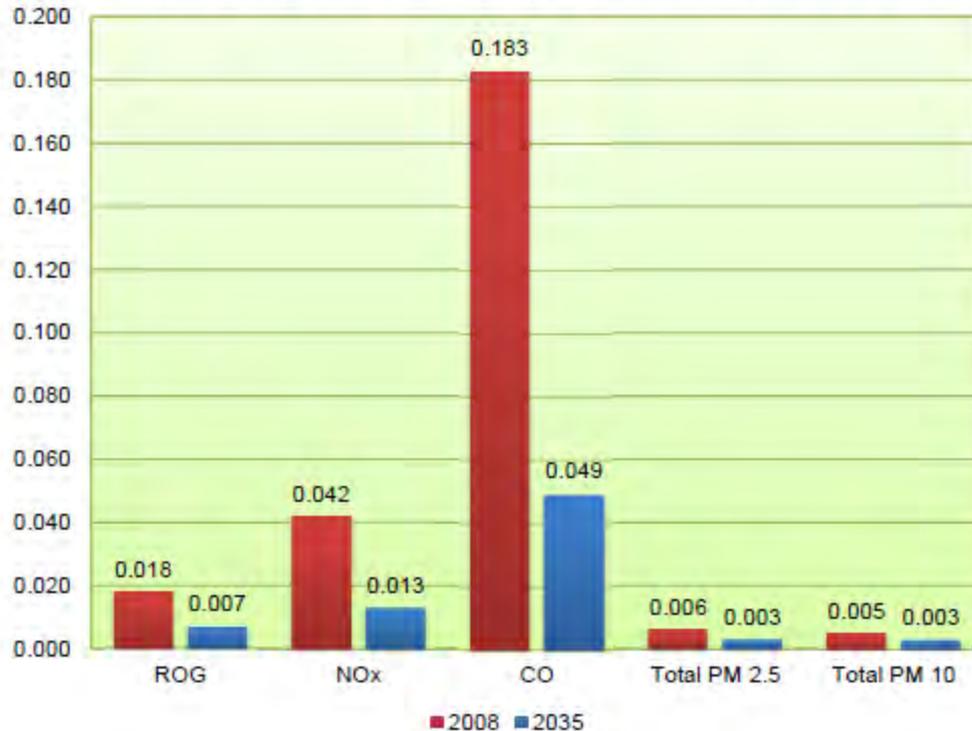
J. Michael McGinnis, MD, MPP; William H. Foege, MD, MPH JAMA. 1993;270(18):2207-2212. doi:10.1001/jama.1993.03510180077038.

<http://jama.jamanetwork.com/article.aspx?articleid=409171>

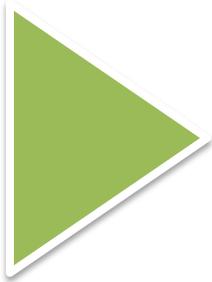
Projected Regional Emissions

Current and Projected Criteria Pollutant Emissions

Grams per Acre per Day (2008 & 2035)



- Several Criteria Pollutants will be reduced as a result of the plan
- CO emissions will experience the most dramatic decrease, followed by NOx, and ROG



Switching to **Active Transport**...

13%

Reduction in Cardiovascular Disease



13%

Reduction in Diabetes

5%

Breast Cancer and Colon Cancer



7%

Reduction in Depression



9%

Reduction in Dementia

How Transportation Affects Health

- **Access to jobs, housing, recreation, healthcare, shopping, school, houses of worship** — affects economic outcomes and quality of life
- **Opportunity to build physical activity into necessary daily transportation** – avoids the “E” word
- **Prevention/abatement of negative environmental health consequences** such as air and water quality impacts.

A few examples:

- **Charlotte, NC transit users found to be 81% less likely to be obese than those who drive to work from the same neighborhoods. Light-rail riders lost weight and BMI consistent with adding 1.2 miles of walking daily** (Source: American Journal of Preventative Medicine)
- **Transit - Denver metropolitan \$7.4B investment in public transit. Every \$1 generates \$4 in economic development over 20 years +6,200 jobs per year** (Source: ULI 2013)

A few examples:

- **\$125M ROI for the City of Lancaster, CA that invested \$10M in more walkable public spaces downtown** (Source: National Complete Streets Coalition 2012)
- **Four times as many voters favor increasing or maintaining current levels of federal investment in walking and biking paths as decreasing them (74 percent – 19 percent) and that strong majorities support this funding regardless of political affiliation.**

(Source Rails to Trails Conservancy poll 2014)

Safety and A/T

200%

Increased likelihood of accidents involving pedestrians on roadways without sidewalks. (Source: FHA)

4,743

Pedestrians killed in 2012
(Source: NHTSA)

76,000

Pedestrians injuries in 2012
24% tripped on uneven/cracked sidewalks (Source: NHTSA)

15%

Reduction in number of auto accidents involving pedestrians after installing traffic-calming elements.
(Source: Active Living Research)

500

U.S. communities adopted Complete Streets policies designed to make streets safer for all users.
(Source: ULI 2013)

A/T Trends

76%

people ages 18 – 34 cite walkability as an important community characteristic. (Source: ULI 2013)

72%

people ages 48 – 66 prefer a smaller home with a shorter commute over a larger home with a longer commute. (Source: ULI 2013)

47%

of people who live in neighborhoods with sidewalks are more likely to be active at least 30 minutes a day. (Source: Active Living Research)

30%

More steps per day taken by public transit users than people who rely on cars. (Source: Active Living Research)

\$34k

average increase in value for homes located in areas with above average walkability or bikeability. (Source: ULI 2013)

Local Action

Champion and advance local policy, systems and environmental change that enhance quality of life.

- **Healthy Community Initiatives/Resolutions**
 - Leverage Resources: BOS, Community, Foundations, Business
 - San Bernardino County: 21 cities, 86% of residents live in these areas
 - Riverside County Healthy Cities Designation and Coalition
- **General Plan/Community Plan/Specific Plan Health Elements**
 - Partnerships between Land Use and Public Health Departments
 - Plan for a Healthy Los Angeles
 - Engaged community members, multi-sectoral collaboration, common language, goals and metrics
 - Data-driven policy and systems change
 - City of Long Beach
 - Transit-oriented development, destinations that encourage A/T, multi-modal/balanced transportation
 - Bloomington Valley Blvd Specific Plan
- **ATP – COGs/Transportation Planning Agencies**
 - Strengthen partnerships with public health, land use, school districts, cities and NGOs

Where the Sidewalk Ends



SCAG's Public Health Program

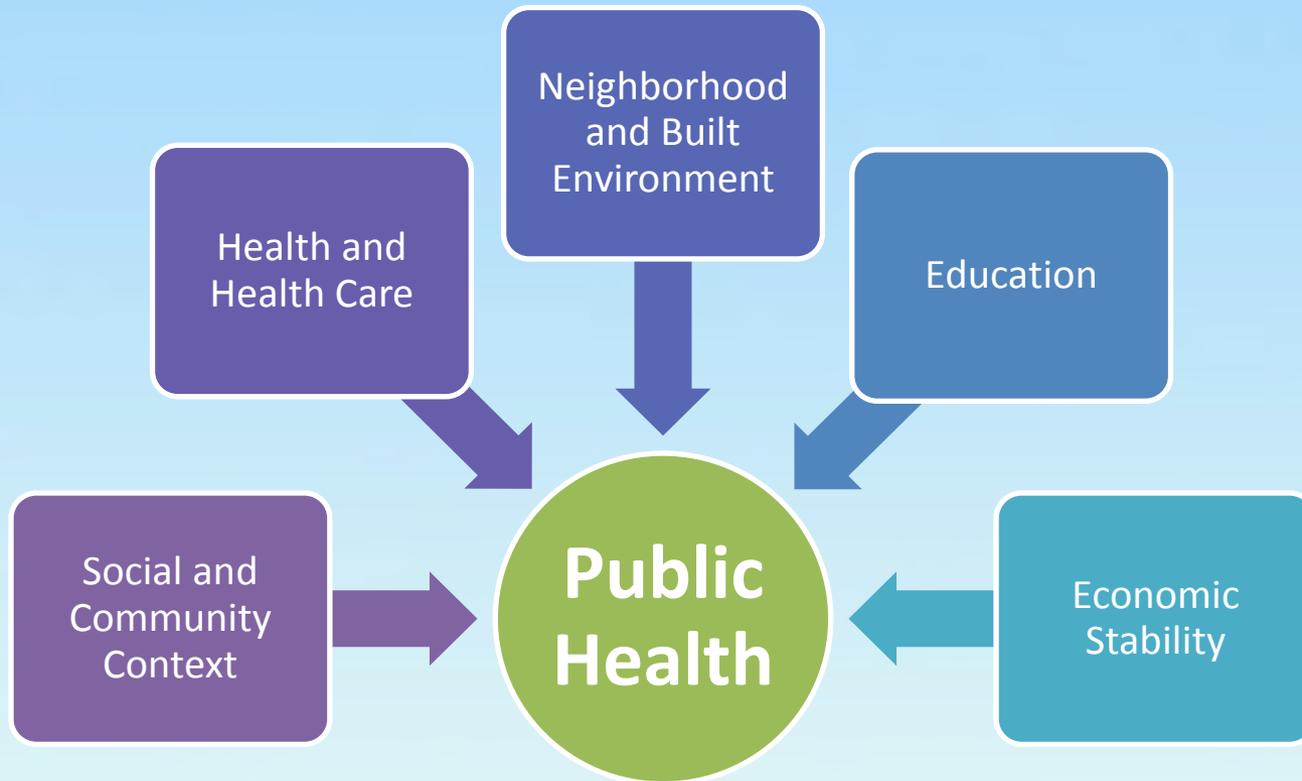
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Social Determinants of Health



Emerging Trend

FHWA

[Moving Healthy:
Linking FHWA Programs and Health](#)

Caltrans

[Safety and Health Goal/Active Transportation Program](#)

DPH

[SBCDPH CVS/PLACDPH PLACE/Riverside Healthy Cities](#)

MPO's

[SANDAG Public Health White Paper/SACOG Public Health
Module for Urban Footprint](#)

Cities

Health Elements/Health Resolutions/Complete Streets/Open
Space/Food Access/HiAP

2012 RTP/SCS and Public Health

- “Protect the environment and health of our residents by improving air quality and encouraging active transportation.”
- **“Collaborate with the region’s public health professionals to enhance how SCAG addresses public health issues in its regional planning, programming, and project development activities.”**

2012 RTP/SCS and Health

Environmental
Justice

Safety

Economic
Vitality

Access to
Goods and
Health Care

Access to
Parks and
Fresh Food

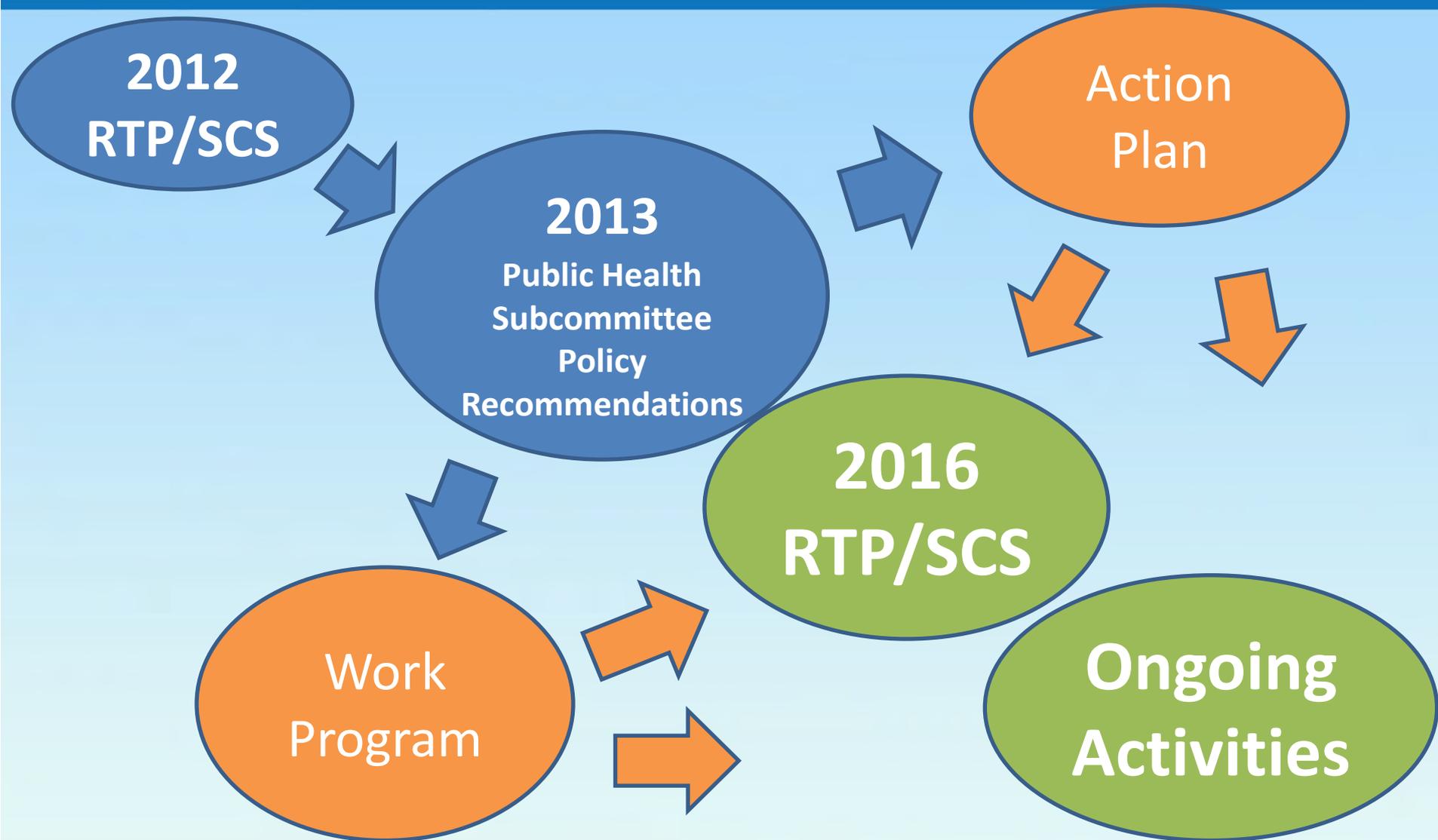
Air Quality

Affordable
Housing

Location
Efficiency

Active
Transportation

“Discussion Draft”



Why Develop a Work Program?

- 1) Update on Current Activities
- 2) Improve Internal Coordination
- 3) **Facilitate an ongoing discussion of SCAG's role** related to Public Health, Transportation and the Built Environment
- 4) Set the stage for the 2016 RTP/SCS process
- 5) Living/Working Document

Public Health Work Plan

Goals



Provide leadership



Incorporate health outcomes into RTP/SCS



Provide regional support

Public Health Work Plan



Work Program Strategies

**REGIONAL
COLLABORATION
AND PARTNERSHIPS
(ENGAGEMENT AND
EDUCATION)**

**Regional
Convenings**

Partnerships

**Support Active
Transportation
Education**

**Expand
Regional
Capacity**

Work Program Strategies

**PUBLIC HEALTH AND
REGIONAL PLANNING
(INTEGRATION)**

**Sustained
Engagement and
Collaboration**

**Performance
Measurements**

**Public Health
Policy
Development**

Work Program Strategies

**TECHNICAL
ASSISTANCE
(SUPPORT AND
ENCOURAGEMENT)**

**Planning
Resources**

**Access to
Expertise**

Communications

Public Health Action Plan



FY 14-15 Action Plan

- Regional Collaboration and Partnerships
 - Randall Lewis Policy Fellows
 - Active Transportation Safety and Encouragement Campaign
 - Public Health Working Group

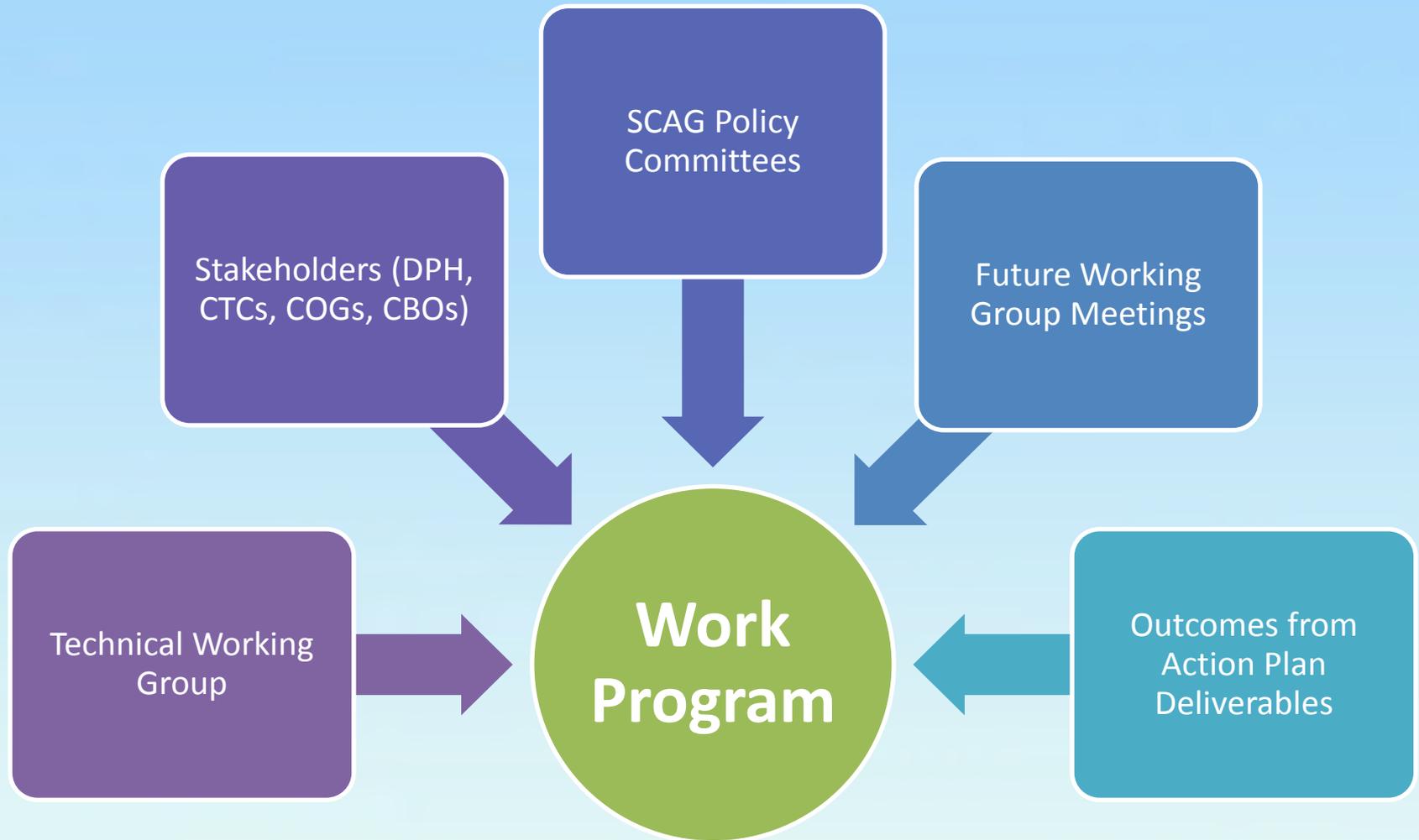
FY 14-15 Action Plan

- Public Health in Regional Planning
 - Active Transportation Health and Economic Impact Study
 - 2016 RTP Public Health White Paper

FY 14-15 Action Plan

- Technical Assistance
 - Active Transportation Training Toolkits
 - Website Upgrades

Further Outreach



Discussion Questions

- Are there additional goals SCAG should include for its Public Health Work Program?
- Are there any additional strategies SCAG should include to integrate public health as a consideration into our planning activities?
- What are the additional opportunities for collaboration?

2016 RTP/SCS Opportunities for Engagement

Rye Baerg
Public Health Working Group

November 17th, 2014



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About SCAG



- **Nation's largest** Metropolitan Planning Organization (MPO)
- Governed by a Regional Council of 84 local elected officials
- **Nation's Global Gateway** for Trade
- Recently adopted the 2012-2035 RTP/SCS

SCAG FACTS ▶

191

Cities

6

Counties

18.5

Million People

16th

Largest Economy
in the World

SCAG Deals With These Regional Issues



TRANSPORTATION



GOODS MOVEMENT



HOUSING



AIR QUALITY



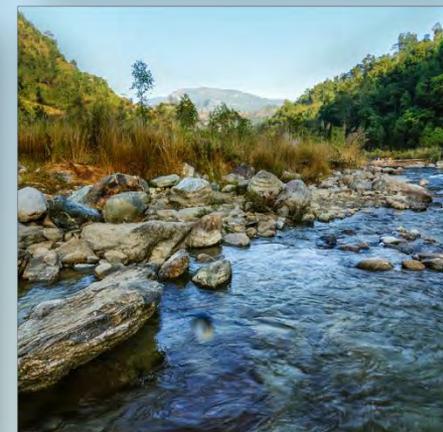
SCS/LAND USE



FUNDING



LONG TERM GROWTH FORECAST



WATER

SCAG's Role as an MPO

Develop Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

- RTP/SCS includes Integrated Land-Use and Transportation Plan
- RTP/SCS must meet GHG reduction targets for 2020, 2035
- First RTP/SCS adopted April 2012
- Unanimous vote of the RTP/SCS by the SCAG Regional Council



2012 RTP/SCS* – Three Key Planning Strategies

ONLY 13%

capital investment
to highways

**Tripled Active
Transportation
investment**

focus over

50%

growth within

3%

land area

FROM 7:3

single- vs. multi-
family units

TO 3:7

2016 RTP/SCS – Scenario Planning

- July 2014 – July 2015 (approx.)
- Scenario Planning Model (SPM)/Urban Footprint
- 4 Initial scenarios – Spring 2015
 - “Local Input”
 - “2012 Plan Updated”
 - “Policy Scenario A”
 - “Policy Scenario B”
- Stakeholder workshops – Late Spring 2015
- 1 Revised/Draft 2016 Plan scenario – Summer 2015
- Draft 2016 RTP/SCS – Fall 2015

2016 RTP/SCS – Scenario Planning

Explore impacts and implications of various RTP/SCS policy options

- Implications of fast vs. slow implementation (e.g. active transportation funding)?
- Will emerging technologies support or conflict with our transportation, land use, other policies?
- Will demographic trends significantly effect transportation, land use needs?
- Are local governments adopting 2012 RTP/SCS policy?
- What will it take to meet more aggressive targets?

Scenario Planning Model

Orange County SCAG UrbanFootprint Scenario Planning Model

Local Input Base

Base Condition

Future

Local Input

RTP 2035

Scenario A

Layers for Local Input

- Background Imagery
- Google map
- Google labels
- Google aerial
- Open Street Maps
- Local Input
- Scenario End State
- Orange County
- Region General Plan Parcels
- County Boundary
- Major Transit Stops
- High Quality Transit Areas
- High Quality Transit Corridors
- Census Tracts
- Sub Region
- Region Existing Land Use Parcels
- Transit Priority Areas
- Region Jurisdiction Boundary
- Region Sphere Of Influence
- Region Tier2 Taz
- Flood Zones
- Endangered Species
- Habitat Conservation Areas
- Cpad Holdings
- Farmland
- Scenario B
- Scenario Increment
- Urbanfootprint Layers
- Water
- Vehicle Miles Traveled
- Base Feature
- Energy

Name: Local Input

Created by:

Description: Orange County Local Input 2035 Scenario Import

Scenario Increment: Dwelling Units By Type

Type	Value
SF Large Lot	8,409
SF Small Lot	25,376
MF	87,209
Attached SF	7,384

Scenario End State: Employment By Sector

Sector	Value
Retail	595,495
Office	784,757
Industrial	355,271
Public	138,240
Other	78

Scenario Increment: Socioeconomic Totals

Metric	Value
Population	411,944
Dwelling Unit	127,549
Employment	348,526

Scenario Builder

100 % Development Percentage

100 % Density Percentage

100 % Gross/Net Percentage

Apply

Undo Redo Revert

Active Built Form: Campus/ University

32.56 DU/Ac 14.25 Emp/Ac

UF Placetypes

- Unsorted
- Campus/ University
- City Commercial
- City Mixed Use
- City Residential
- High Intensity Activity Center
- Industrial Focus
- Industrial/Office/Res Mixed High
- Industrial/Office/Res Mixed Low
- Institutional
- Large Lot Residential Area
- Low Intensity Retail-Centered N'Hood
- Low-Density Employment Park
- Mid Intensity Activity Center
- Mixed Office and R&D
- Neighborhood Low
- Neighborhood Residential
- Office Focus
- Office/Industrial
- Parks & Open Space
- Residential Subdivision

UrbanFootprint rev. 2014.11.24 © 2014 Calthorpe Analytics

Scenario Planning Model

Orange County SCAG UrbanFootprint Scenario Planning Model

Local Input Base

Name: Local Input
Created by:
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Scenario Increment: Dwelling Units By Type

Building Type	Value
SF Large Lot	8,499
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Scenario Increment: Socioeconomic Totals

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Layers for Local Input

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- Scenario B
- Scenario Increment
- Urbanfootprint Layers
- Water
- Vehicle Miles Traveled
- Base Feature
- Energy

Placetype: Mixed Office and R&D

Included Building Types in PlaceType

Building Type	Du/Acre	Emp/Acre	Use Pot
Industrial High	0.0	25.8	5.6
Low Intensity Strip Commercial	0.0	13.3	3.5
Industrial Low	0.0	12.6	2.1
Park	0.0	0.0	4.0
Warehouse Low	0.0	14.7	2.1
Streets	0.0	0.0	21.1
Office Park High	0.0	98.6	21.7
Office Park Low	0.0	22.1	23.1
Parking Structure	0.0	3.6	3.5
Medium Intensity Strip Commercial	0.0	29.3	3.5
Detention/Utilities	0.0	0.0	5.0
Warehouse High	0.0	64.9	4.9

Summary Densities (Per Acre)

Dwelling Unit Density	0.0
Single Family Large Lot	0.0
Single Family Small Lot	0.0
Attached Single Family	0.0
Multifamily Units	0.0
All Employment	33.3
Retail Employees	1.7
Office Density	27.4
Public Employees	0.0
Industrial Employees	4.2
Agriculture Employees	0.0
Military Employees	0.0

#A981D5

Red: 169
Green: 129
Blue: 213

UrbanFootprint rev. 2014.11.24 © 2014 Calthorpe Analytics

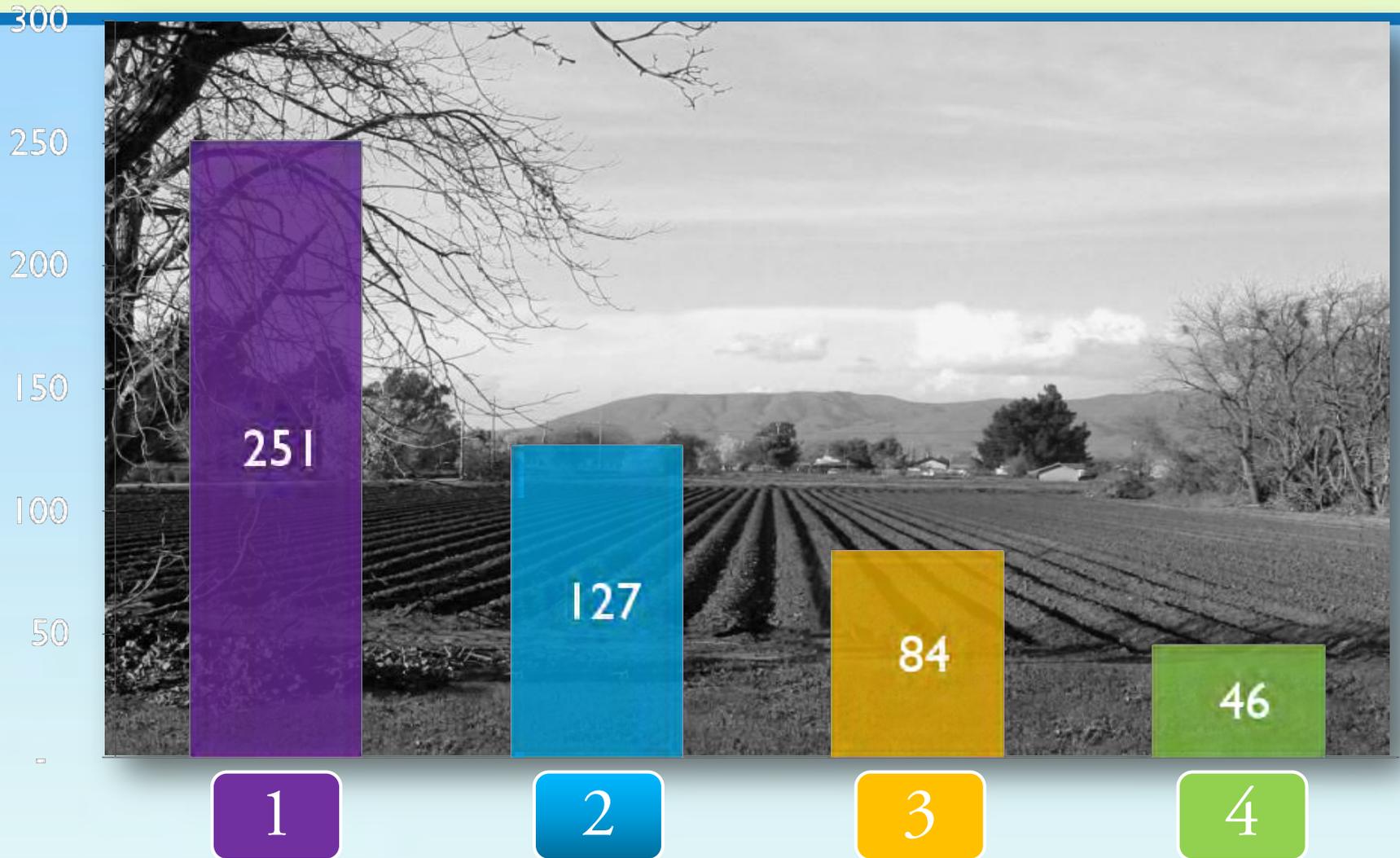
Land Consumed

Square Miles



Land Consumed

Square Miles



Vehicle Miles Traveled

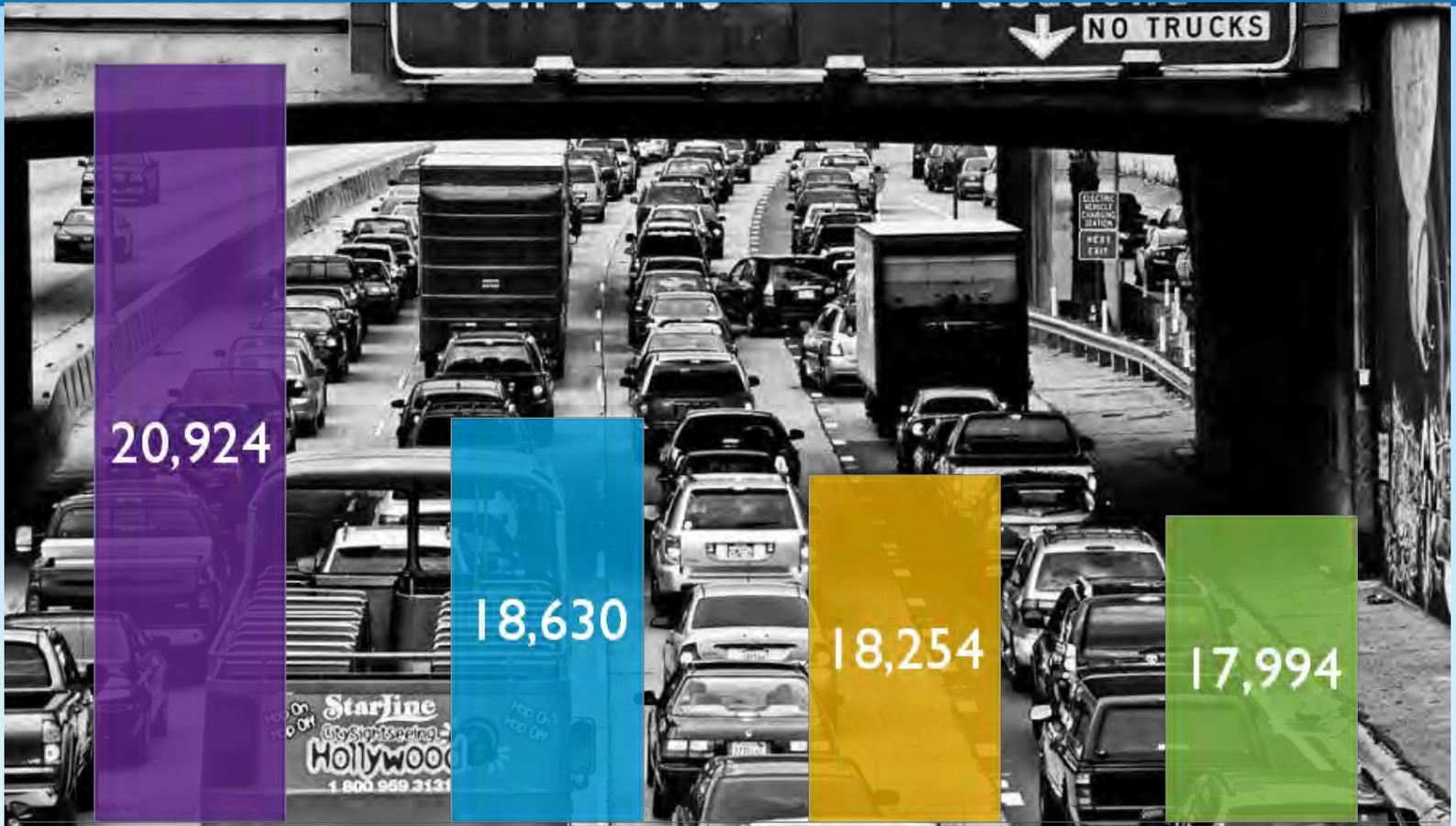
Annual per household, 2035



Vehicle Miles Traveled

Annual per household, 2035

21,000
20,000
19,000
18,000
17,000
16,000



1

2

3

4

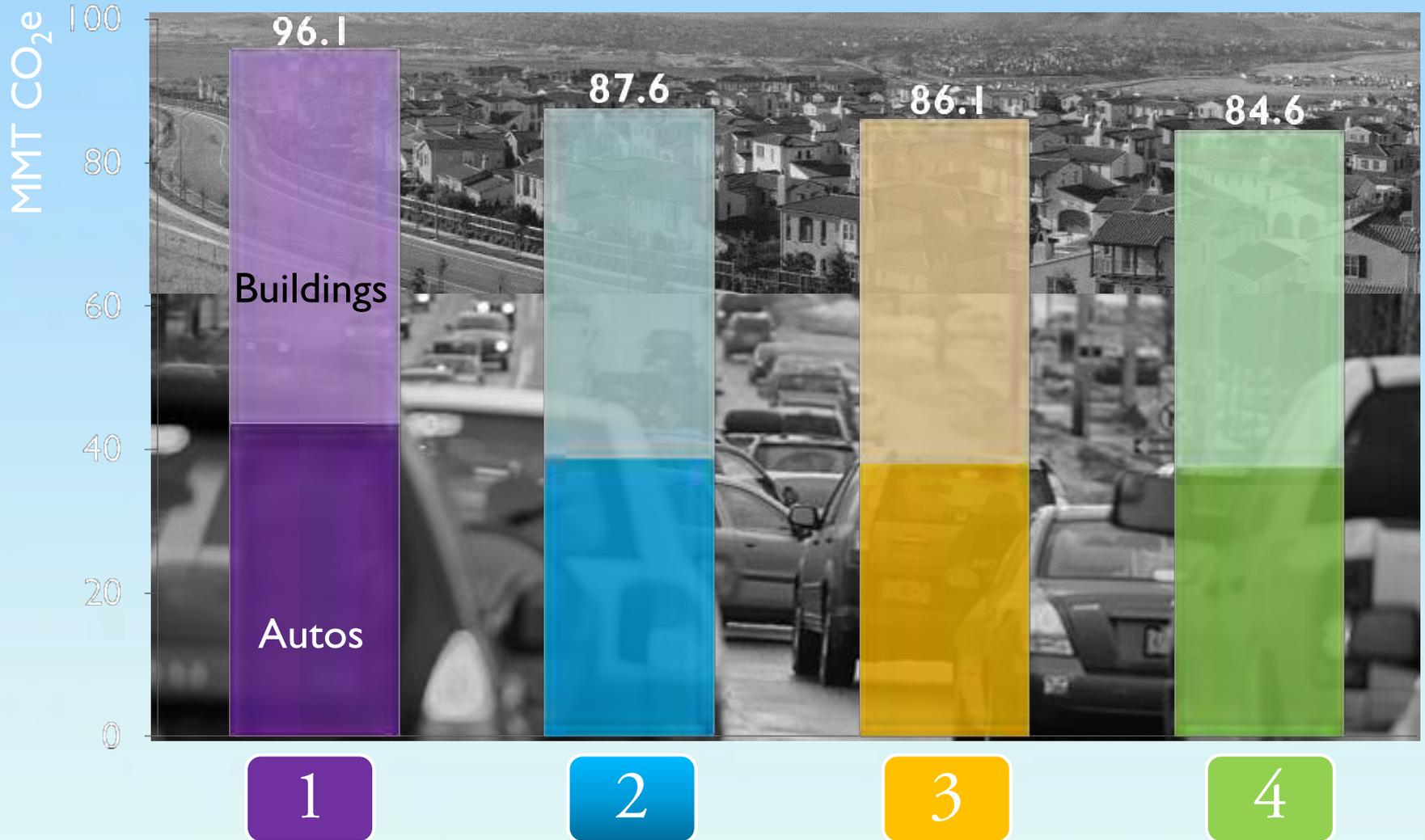
Greenhouse Gas Emissions

Annual Emissions from Buildings and Auto Transportation, 2035



Greenhouse Gas Emissions

Annual Emissions from Buildings and Auto Transportation, 2035



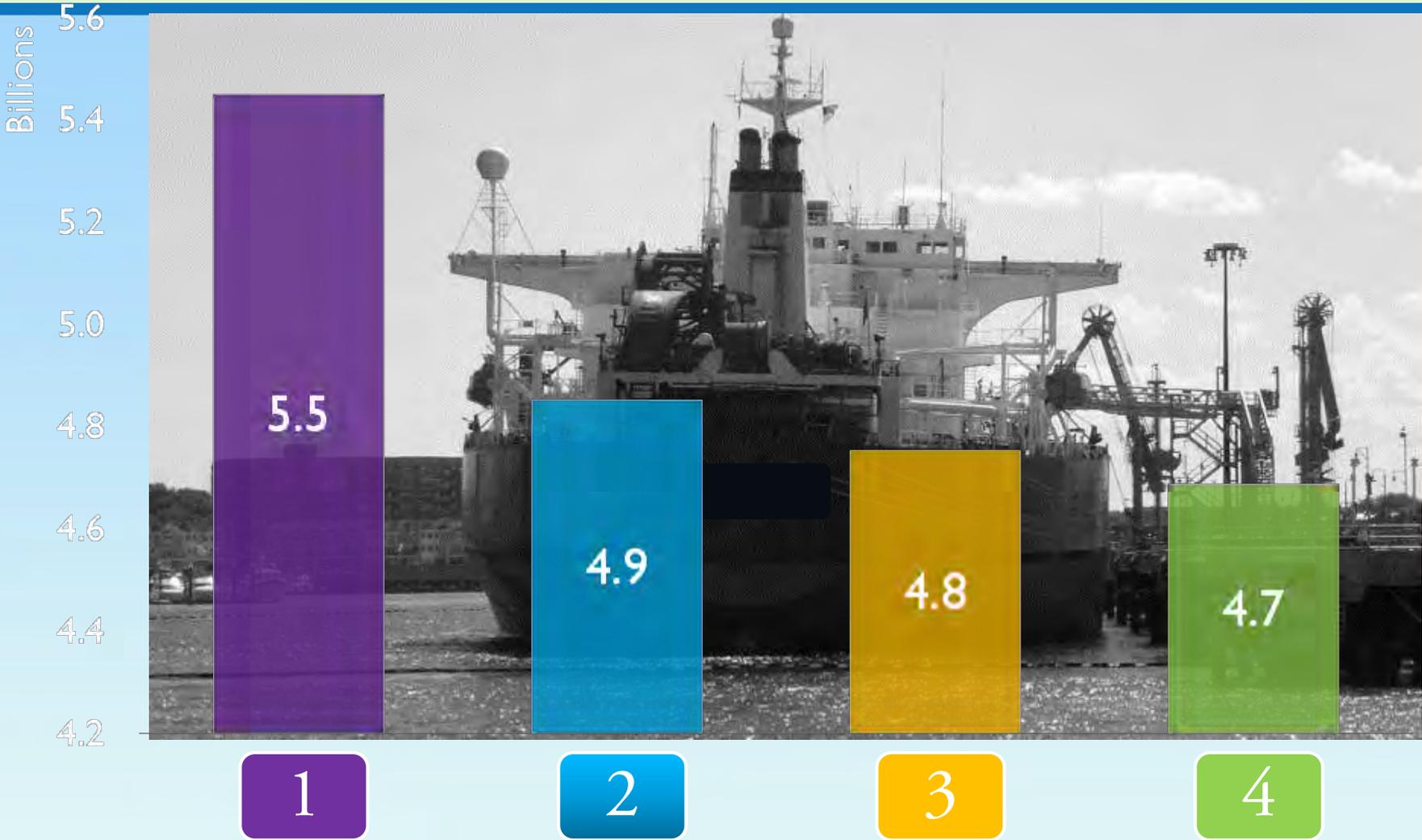
Fuel Consumption

Billions of Gallons, 2035



Fuel Consumption

Billions of Gallons, Annual, 2035



2016 RTP/SCS

Scenario Planning Model (SPM)

SPM Outputs – Scenario Performance Measures

- Transportation
 - Vehicle Miles Traveled (VMT)
 - GHG emissions, criteria pollutant emissions, mode share, etc.
- Land Consumption
 - Acres of “greenfield” developed, infill re-development
- Buildings - Energy and Water Use
 - Costs, associated GHG emissions
- Fiscal Impacts for Local Govt’s
 - Infrastructure costs & tax revenues associated with new development

2016 RTP/SCS Scenario Planning Model (SPM)

SPM Outputs – Scenario Performance Measures

- New Public Health Module enhances analysis of incidence and costs for 3 health impact categories:
 - Active Transportation/Physical Activity-related
 - Respiratory-related
 - Accident-related
- SCAG 2016 RTP/SCS should be the first application of new tool

Plan Performance Measures (General Categories)

- 1) Location Efficiency*
- 2) Mobility and Accessibility*
- 3) Health and Safety*
- 4) Environmental Quality*
- 5) Economic Well Being*
- 6) Investment Effectiveness*
- 7) System Sustainability*

*SCAG 2012 RTP/SCS

Plan Performance Measures (Health & Safety)

- **Physical Activity-related**

- Obesity, Heart disease, High blood pressure, Diabetes (Type 2)

- **Air Pollution-related**

- Respiratory & heart diseases
- Criteria pollutant emissions (CO, NO_x, PM_{2.5}, PM₁₀ & VOC)*

- **Safety-related**

- Collision/accident rates by severity by mode*

*SCAG 2012 RTP/SCS

Monitoring Performance Measures (Health & Safety)

- **Physical Activity-related**

- Mode share (walking, biking & transit)
- Percent of residents within ½ mile walk to parks and open space*

- **Air Pollution-related**

- Premature deaths due to PM2.5*
- Asthma incidence and exacerbations*
- Percent of households living <500 feet from high-volume roadways*
- Ambient air quality condition*

- **Safety-related**

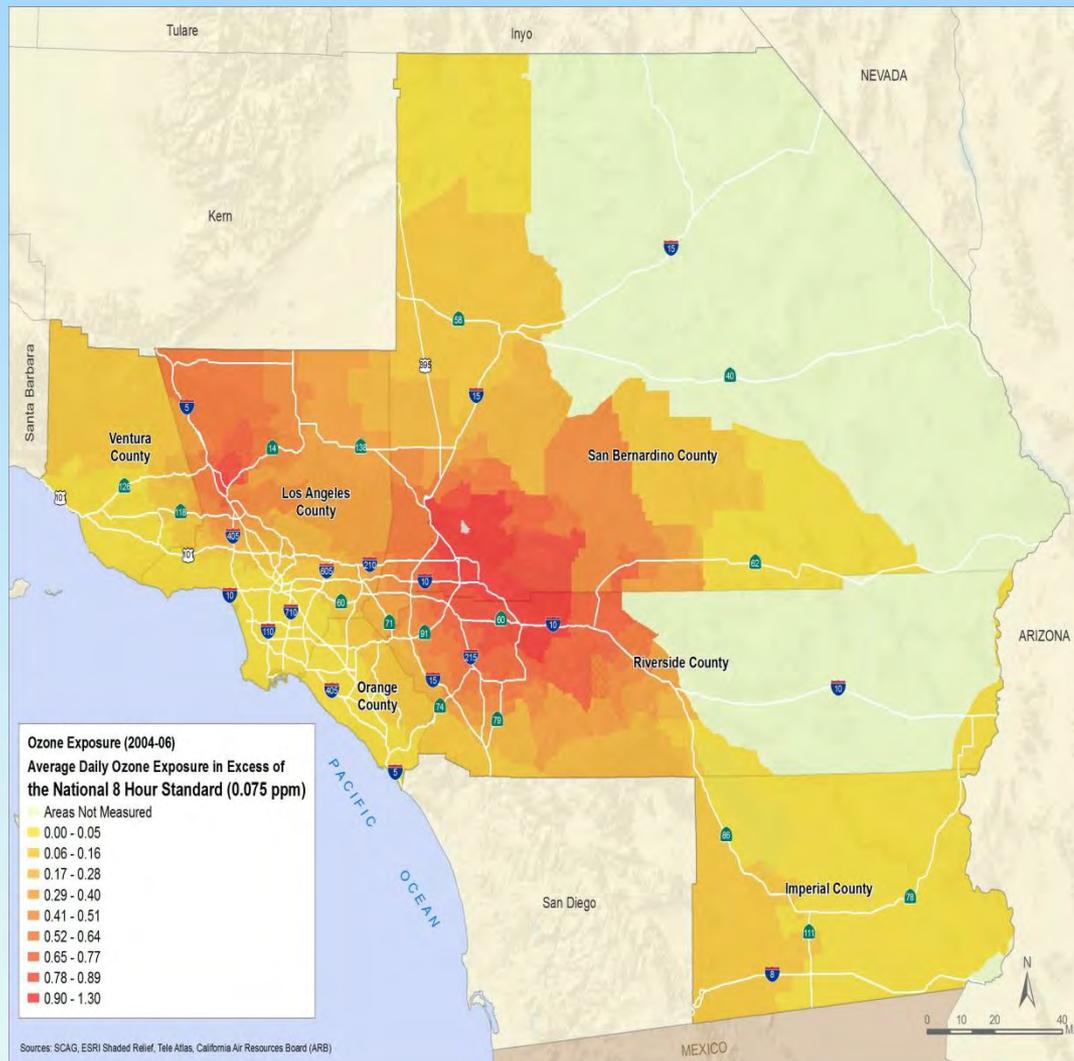
- Collision/accident rates by severity by mode*

*SCAG 2012 RTP/SCS

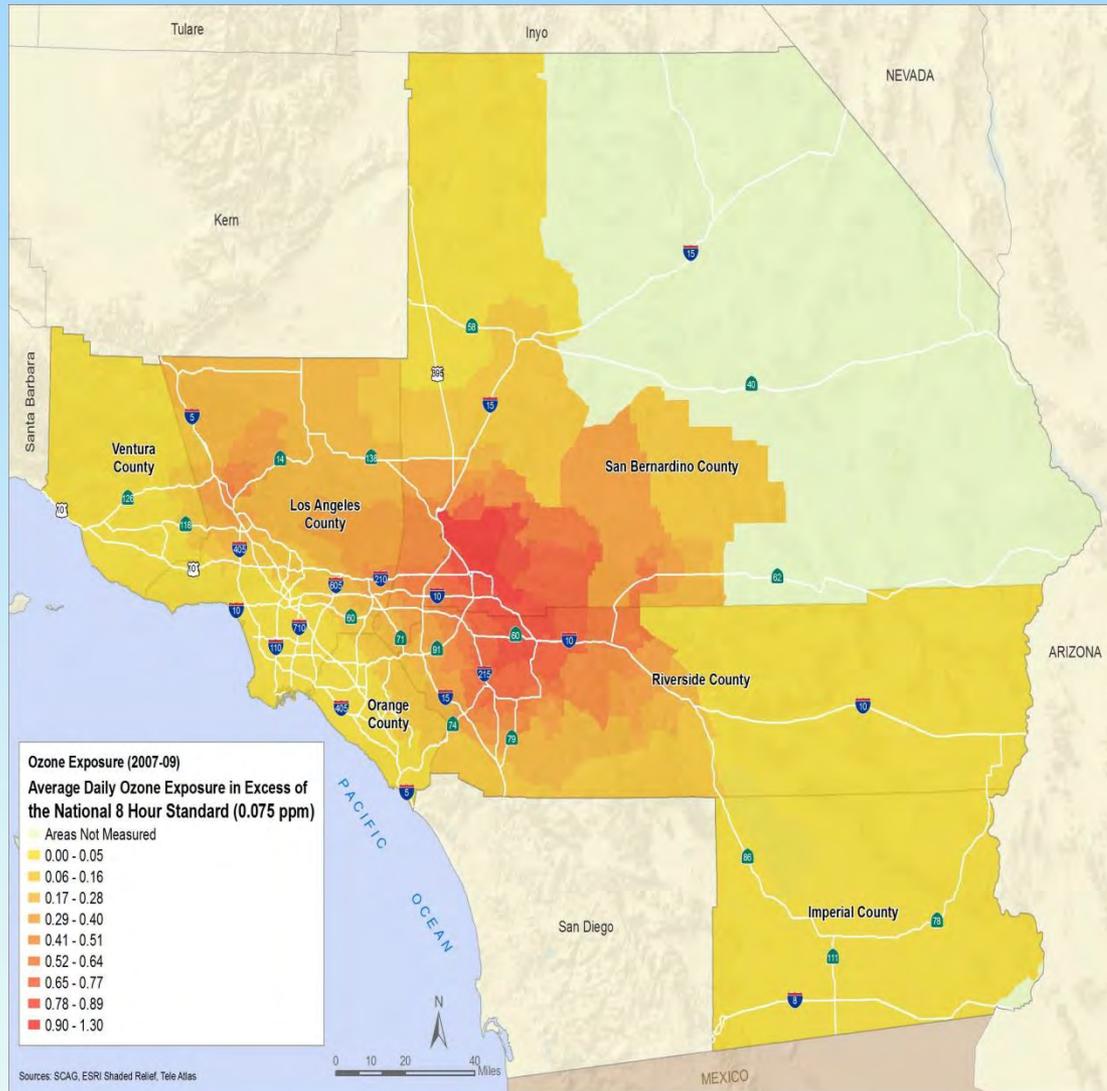
Environmental Justice and Existing Regional Emissions

- Average Daily Ozone Exposure in Excess of Federal Standards
- Average Annual Concentration of PM 2.5 Exposure
- Cancer Risk over Lifetime per Million Persons
- Respiratory Hazard Risk Index

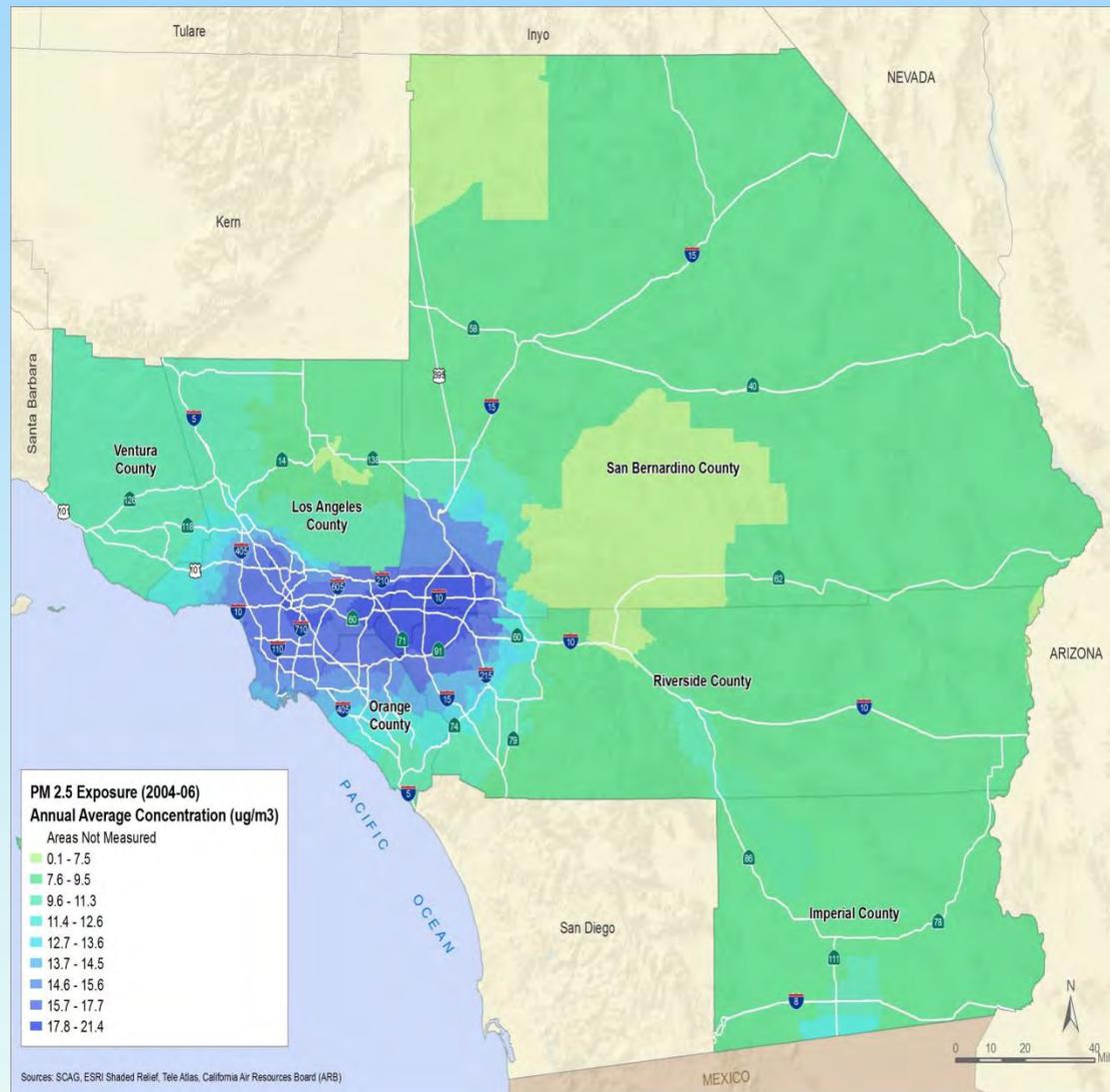
Ozone Exposure (2004-06)



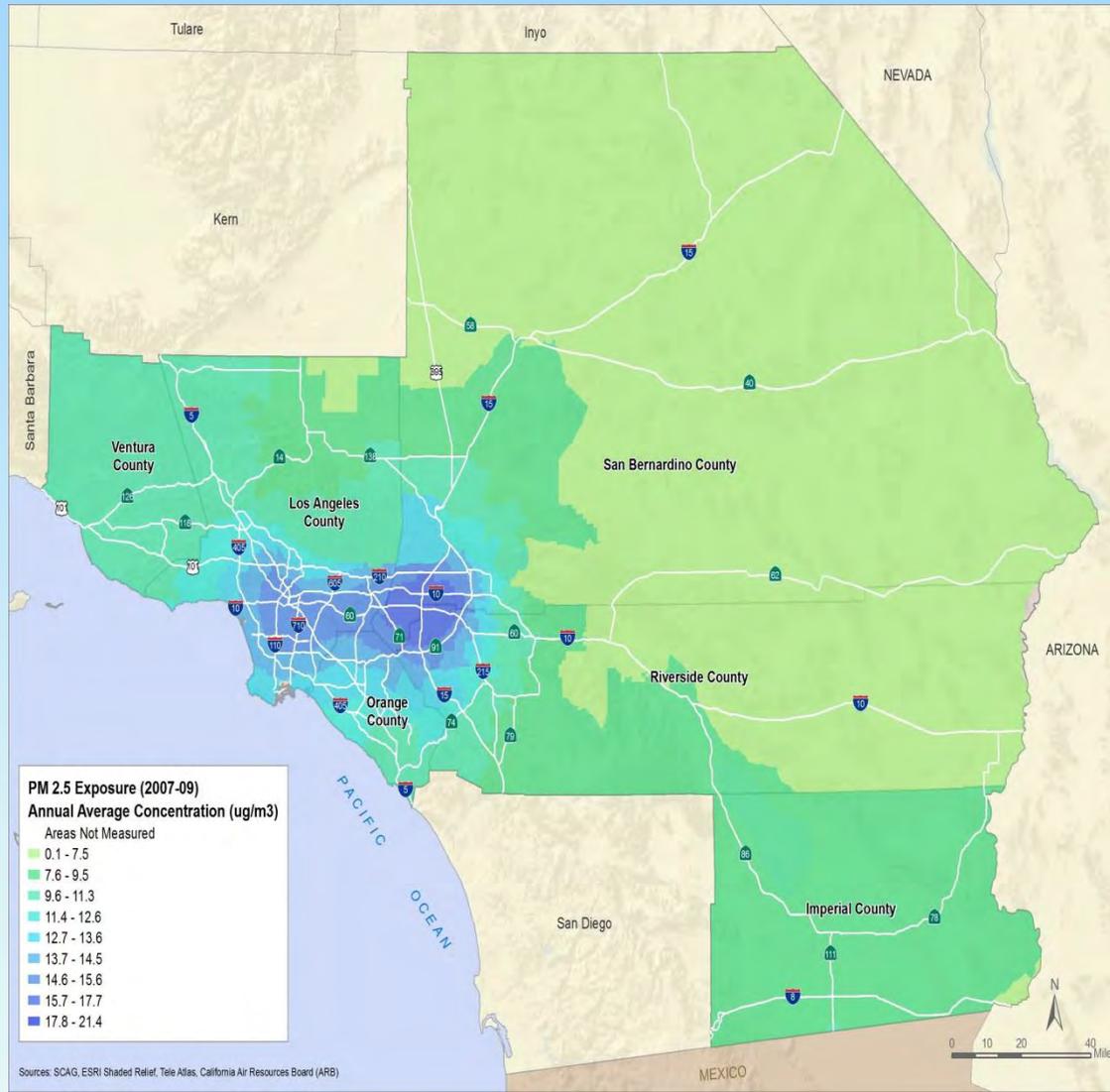
Ozone Exposure (2007-09)



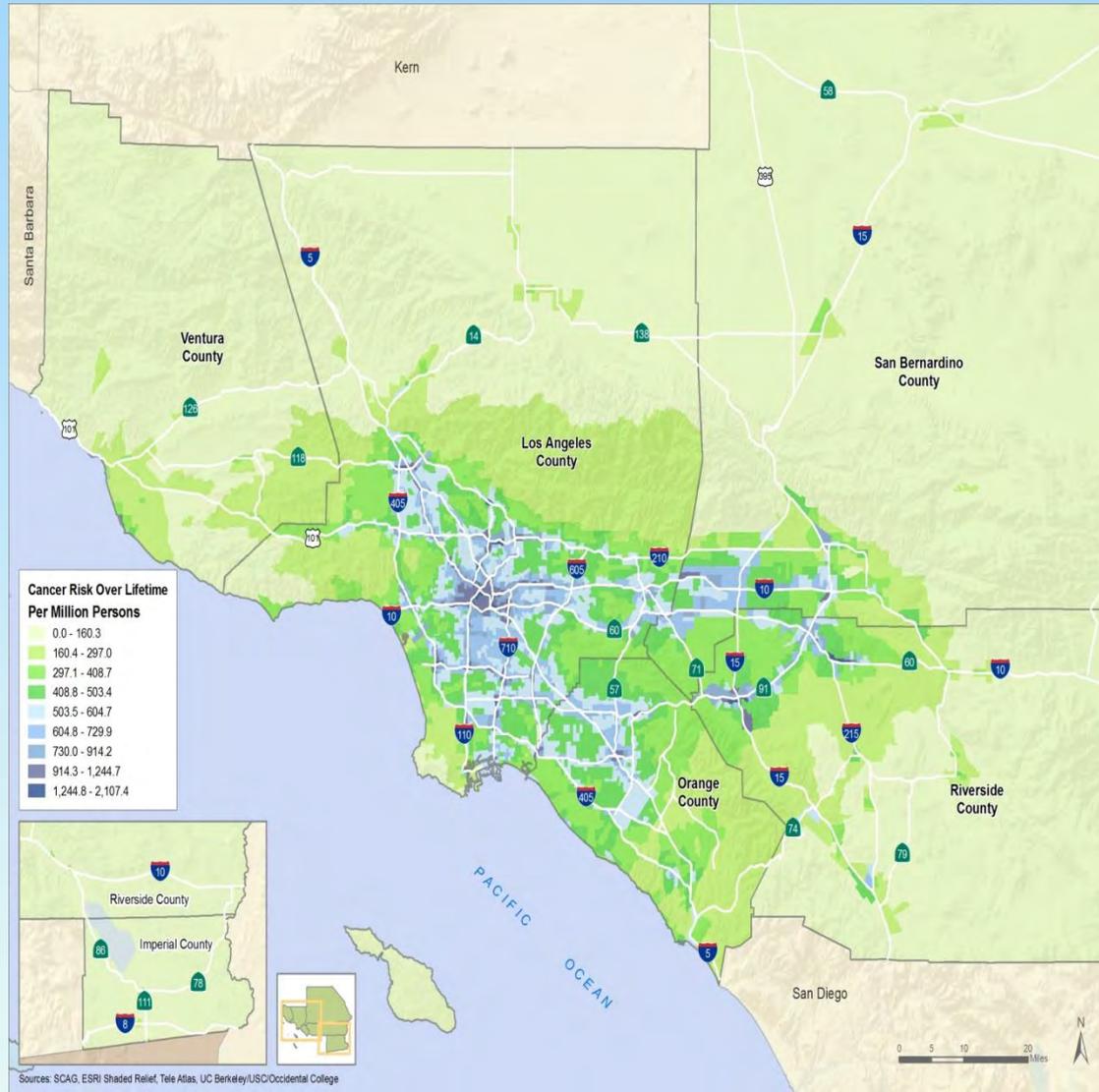
PM 2.5 Exposure (2004-06)



PM 2.5 Exposure (2007-09)



Cancer Risk Over Lifetime (2005)



PROGRAM

ENVIRONMENTAL IMPACT REPORT (PEIR)

- SCAG is a lead agency that has the principal responsibility for carrying out or approving the RTP/SCS (*CEQA Guidelines Section 15367*).
- PEIR analyzes any potential effects of the RTP/SCS on the environment
- Statutory Definition of Environment (*PRC Section 21060.5*):
 - Direct physical environment
 - Does not include human body or human health
- Appendix G of the CEQA Guidelines:
 - Public health is not a listed resource area in the CEQA Guidelines.
 - Environmental effect of a project includes effects on human beings, either directly or indirectly (*PRC Section 21083(a)(3)*).
 - It assumes the environment to include human life and health.
 - Some EIR topic areas (e.g., air quality and noise) are public health-related.

PROGRAM

ENVIRONMENTAL IMPACT REPORT (PEIR)

- Health Risk Assessment
 - A traditional CEQA analysis regarding public health
- Analyze PEIR topic areas, where applicable, from a public health lens
- Examples of applicable PEIR topic areas may include:
 - Air quality
 - Noise
 - Hydrology/Water Quality
 - Public services (accessibility)
 - Recreation
 - Transportation/Traffic (active transportation)
- Initial Study/Notice of Preparation – 1st quarter of 2015

Discussion: 2016 RTP/SCS Scenario Planning

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2012 RTP/SCS and Health

Environmental
Justice

Access to
Goods and
Health Care

Safety

Economic
Vitality

Access to
Parks and
Fresh Food

Air Quality

Affordable
Housing

Location
Efficiency

Active
Transportation

2016 RTP/SCS

- What questions related to public health should we include in the scenarios?
- What policy questions would you like us to examine?

Thank you.

Rye Baerg, Associate Regional Planner, Active Transportation and Special Programs

(213) 236-1866, or Baerg@scag.ca.gov

Christopher Tzeng, , Sustainability

(213) 236-1913 , or tzeng@scag.ca.gov

Ping Chang, Manager, Compliance and Performance

(213) 236-1839, or chang@scag.ca.gov

Jonathan Nadler, Manager, Compliance and Performance Assessment

(213) 236-1884, or nadler@scag.ca.gov

Lijin Sun, Senior Regional Planner, Compliance and Performance Assessment

(213) 236-1882, or sunl@scag.ca.gov



Next Steps



Working Groups/Workshops (Spring 2015)

- Environmental Justice Workshops
- Public Health Working Group
- Active Transportation Working Group
- Active Transportation Program Stakeholders Group
- Safety and Encouragement Campaign Working Group
- Technical Working Group
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213-236-1866



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